

Summary

In a 2001 survey, it was found that middle school students who participated in the Drug Abuse Resistance Education (D.A.R.E.) program in elementary school resisted alcohol, tobacco, and other drugs to the same degree as students who did not participate. In 2000, when public school teachers and law enforcement officers were surveyed, an overwhelming majority reported that they believe D.A.R.E. teaches students to respect officers, increases cooperation between officers and school staff, should be provided in their school district, and should be expanded throughout West Virginia. To a lesser extent, teachers and officers reported that they believe the D.A.R.E. program is effective in changing student behavior related to alcohol, tobacco, marijuana, illegal drugs, and crime.

Purpose

Officers from a variety of police departments in West Virginia teach the D.A.R.E. curriculum to elementary school students throughout the state. These efforts are funded from a variety of sources, including the U. S. Department of Education's Safe-and-Drug-Free Schools and Communities program through West Virginia's Division of Criminal Justice Services. To comply with the U. S. Department of Education's *Principles of Effectiveness*, the D.A.R.E. committee conducted a scientific evaluation of the program in West Virginia. This report summarizes the evaluation.

Methodology

The evaluation of the D.A.R.E. program consisted of two parts: an opinion survey of teachers and police officers and a behavioral survey of students.

Survey of Teachers and Officers

In July of 2000, a 38-item survey was mailed to 349 law enforcement officers and a 20-item survey was mailed to 692 public school teachers in West Virginia. Responses were obtained from 114 officers and 348 teachers. The survey asked the officers and teachers their opinions of the D.A.R.E. program and its effectiveness. Officers were also asked about their participation in the D.A.R.E. program and their comfort level in working with teachers, school staff, students and parents. For most of the questions, respondents were asked to choose between "Not at all," "Somewhat," and "A Lot" to indicate their opinion. Chi-square tests of independence were conducted for questions that were asked of both teachers and officers to determine if they differed in their opinion of the D.A.R.E. program.

Survey of Student Behavior

In the spring of 2001, the West Virginia Department of Education administered the Youth Risk Behavior Survey (YRBS) to a sample of 6th, 7th, and 8th graders in West Virginia. 38 schools were selected by the Centers for Disease Control to participate in this survey. Of these schools, 37 actually participated. 1,901 students were surveyed. Of these students, 1,509 provided usable survey data. To determine the impact of the D.A.R.E. program on students' self-reported use of alcohol, tobacco, and other drugs, two questions were added to the survey. Question 56 asked, "Did you ever participate in the D.A.R.E. Program?" and question 57 asked, "Did you graduate from the D.A.R.E. Program?" These questions were used to divide the students into three groups. 829 students reported that they had participated in and graduated from D.A.R.E. (Graduates); 99 students participated in, but did not graduate from D.A.R.E. (Non-Graduates); and 387 students did not participate in or graduate from D.A.R.E. (Non-Participants). Chi-square tests of independence and analyses of variance (ANOVA) were conducted to determine if these three groups differed in their self-reported use of alcohol, tobacco, and other drugs.

Results and Discussion

Survey of Teachers and Officers

The majority of teachers and officers who were familiar with the D.A.R.E. program responded positively, either “Somewhat” or “A Lot,” when asked about the effectiveness of the D.A.R.E. program in changing student behavior. To a greater degree, officers and teachers believe that the D.A.R.E. program teaches students to respect officers, increases cooperation between officers and school staff, should be provided in their school district, and should be expanded throughout West Virginia. The percent of teachers and officers who responded “Somewhat” and “A Lot” are reported in the table below.

Question	Somewhat	A Lot
Do you believe the D.A.R.E. program teaches young people to have respect for police officers?	24%	74%
Do you believe the D.A.R.E. program increases cooperation between police and school staff?	22%	75%
Do you believe the D.A.R.E. skills are effective in reducing the student use of tobacco?	51%	43%
Do you believe the D.A.R.E. skills are effective in reducing the student use of alcohol?	51%	44%
Do you believe the D.A.R.E. skills are effective in reducing the student use of marijuana?	48%	48%
Do you believe the D.A.R.E. skills are effective in reducing the student use of illegal drugs?	45%	52%
Do you think the D.A.R.E. program provides skills to avoid criminal behavior?	39%	58%
Do you believe the D.A.R.E. program should be provided in your school district?	12%	85%

Teachers and officers responded significantly differently for two questions. When asked, “Do you believe the D.A.R.E. program is helpful to youth?” 86% of the officers, but only 70% of the teachers, responded “A Lot.” ($X^2 = 11.6$, $df = 2$, $p = .003$, $n = 438$). Additionally, a greater percent of officers responded that the D.A.R.E. program should be expanded throughout West Virginia. 93% of the officers, compared with 82% of the teachers responded “A Lot.” ($X^2 = 8.4$, $df = 2$, $p = .015$, $n = 428$).

Survey of Student Behavior

Graduates were statistically significantly older than non-graduates when they had their first drink of alcohol other than a few sips. Graduates were 11.0 years old and non-graduates were 10.1 years old. Non-participants were not different from either group. ($F = 5.62$, $df = 564$, $p = .004$, $n = 567$). This difference suggests that students who complete and graduate from the D.A.R.E. program resist alcohol for longer than those who do not graduate. This finding, however, could be attributed to self-selection, in which students who are more likely to use alcohol drop out of the D.A.R.E. program.

Students’ responses to the remaining questions were not statistically significantly different between the three groups. The result of each question is presented in the table below.

53.0% of the students reported that they have never tried a cigarette, even one or two puffs.
69.0% of the students reported that they have never smoked a whole cigarette.
Of the students who have smoked a whole cigarette, students were an average of 10.6 years old when they smoked a whole cigarette for the first time.
83.9% of the students reported that they did not smoke cigarettes in the past 30 days.
Of those who smoked a cigarette in the past 30 days, students smoked on an average of 8.5 days of the past 30 days.
Of those who smoked a cigarette in the past 30 days, 25.5% smoked less than 1 cigarette, 18.4% smoked 1 cigarette, 35.1% smoked 2 to 5 cigarettes, and 20.9% smoked 6 or more cigarettes.
90.0% of the students reported that they have never smoked cigarettes daily, that is, at least one cigarette every day for 30 days.
91.8% of the students reported that they did not use chewing tobacco in the past 30 days.
Of those who used chewing tobacco in the past 30 days, 54.8% used on 1 to 5 days, 23.5% used on 6 to 29 days, and 21.7% used on all 30 days.
91.2% of the students reported that they did not smoke cigars, cigarillos, or little cigars in the past 30 days.
Of those that did smoke cigars, cigarillos, or little cigars in the past 30 days, students smoked an average of 8.0 days of the past 30 days.
53.9% of the students reported that they have never had more than a few sips of alcohol.
84.1% of the students reported that they have never used marijuana.

Of those that have used marijuana, students were 11.9 years old on average the first time they tried marijuana.
95.3% of the students reported that they have never used a form of cocaine, including powder, crack, or freebase.
83.3% of the students reported that they have never sniffed glues, breathed the contents of spray cans, or inhaled any paints or sprays to get high.
96.1% of the students reported that they have never used steroids.
98.1% of the students reported that they have never used a needle to inject an illegal drug into their body.

Recommendations for Future Research

The interpretation of the YRBS data relied upon accurate and complete responses from students. It is unlikely that researchers can observe students' behavior; therefore, it is recommended that evaluations of the D.A.R.E. program continue to use self-reported behavior surveys, such as the YRBS. Measures to protect the students' confidentiality should continue to be used and students should be assured that their answers are confidential.

The interpretation of the opinion survey relied upon honest responses that objectively assess the D.A.R.E. program. Research methods to observe teacher/officer cooperation could be developed. One method might include documenting direct referrals, emergency calls, and other signs of cooperation officers receive from a particular school, both before and after implementing the D.A.R.E. program in that school.

This evaluation was designed to examine differences in student behavior in the middle school. The D.A.R.E. program could have a delayed effect, that is, differences in student behavior may not be revealed until high school. Therefore, it is recommended that the analyses above be replicated with high school YRBS data.

Acknowledgements

Funding for this evaluation was provided by grant #98-S186B980050 from the U. S. Department of Education, Safe-and-Drug-Free Schools and Communities Program, administered by the Division of Criminal Justice Services, and sub-granted to the Charleston Police Department. The opinions, findings, conclusions, and recommendations expressed in this report are those of the D.A.R.E. committee members and may not necessarily reflect those of the U. S. Department of Education or any other entity. The committee members would like to acknowledge the assistance and cooperation received from their agencies; the Centers for Disease Control; and most importantly, the students, teachers, and police officers who participated in this study.

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